Release notes for ENDF/B Development e-068_Er_000 evaluation



October 13, 2016

• fudge-4.0 Warnings:

1. Mislabled emitted particle Reading ENDF file: ../e-068_Er_000.endf (Error # 0): ZAP messed up

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message reaction label 1: e- + Er + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message reaction label 2: e- + Er [excitation] / Product: e- (Error # 0): Generic unimp (c)

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree reaction label 0: e- + Er [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree reaction label 1: e- + Er + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree reaction label 2: e- + Er [excitation] / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree reaction label 3: e- + e- + Er1s1/2 / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 57574. eV!

5. Calculated and tabulated thresholds don't agree reaction label 4: $e^- + e^- + Er2s1/2$ / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9716.200000000001 eV!

6. Calculated and tabulated thresholds don't agree reaction label 5: e- + e- + Er2p1/2 / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9274.79999999999 eV!

7. Calculated and tabulated thresholds don't agree reaction label 6: e- + e- + Er2p3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8347.4 eV!
```

- 8. Calculated and tabulated thresholds don't agree reaction label 7: e- + e- + Er3s1/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2188.9 eV!
- 9. Calculated and tabulated thresholds don't agree reaction label 8: e- + e- + Er3p1/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1991.8 eV!
- 10. Calculated and tabulated thresholds don't agree reaction label 9: e- + e- + Er3p3/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1796.2 eV!
- 11. Calculated and tabulated thresholds don't agree reaction label 10: e- + e- + Er3d3/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1455. eV!
- 12. Calculated and tabulated thresholds don't agree reaction label 11: e- + e- + Er3d5/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1412. eV!
- 13. Calculated and tabulated thresholds don't agree reaction label 12: e- + e- + Er4s1/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 436.85 eV!
- 14. Calculated and tabulated thresholds don't agree reaction label 13: e- + e- + Er4p1/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 357.04 eV!
- 15. Calculated and tabulated thresholds don't agree reaction label 14: e- + e- + Er4p3/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 312.97 eV!
- 16. Calculated and tabulated thresholds don't agree reaction label 15: e- + e- + Er4d3/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 180.25 eV!
- 17. Calculated and tabulated thresholds don't agree reaction label 16: e- + e- + Er4d5/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 172.26 eV!
- 18. Calculated and tabulated thresholds don't agree reaction label 17: e- + e- + Er4f5/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.94 eV!

- 19. Calculated and tabulated thresholds don't agree reaction label 18: e- + e- + Er4f7/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.76 eV!
- 20. Calculated and tabulated thresholds don't agree reaction label 19: e- + e- + Er5s1/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 56.73 eV!
- 21. Calculated and tabulated thresholds don't agree reaction label 20: e- + e- + Er5p1/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 34.73 eV!
- 22. Calculated and tabulated thresholds don't agree reaction label 21: e- + e- + Er5p3/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 29.06 eV!
- 23. Calculated and tabulated thresholds don't agree reaction label 22: e- + e- + Er6s1/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.48 eV!
- xsectplotter Warnings:
 - 1. Mislabled emitted particle Error: ZAP messed up

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0 \dots [4 more lines]